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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,720	08/09/2001	Koichi Fujioka	Q65748	3972

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SUGHRUE, MION, ZINN, MACPEAK & SEAS
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EXAMINER

GUILL, RUSSELL L

ART UNIT PAPER NUMBER

2123

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,720

Applicant(s)

FUJIOKA, KOICHI

Examiner

Russell L. Guill

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date none 2 pages
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1 – 10 have been examined. Claims 1 – 10 have been rejected.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 2, 3, 6, 7, and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

- 3.1. The method of calculation of an area necessary for clamping the cables is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. For example, in the case of an elongated rectangular cable clamp, the area of the cable clamp by itself would not be sufficient to determine whether the cable clamp would suffice to clamp the cables.

- 3.2.** The method of comparing an inner-diameter area corresponding to an inner diameter of the cable clamp with the area necessary for clamping the cables is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. For example, the specifications do not disclose how to find the inner diameter area of an elongated rectangular cable clamp.
- 3.3.** The method of selecting one or more cable clamps suitable for the area necessary for clamping the cables is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specifications appear to be silent about the process to select suitable cable clamps.
- 3.4.** The method of designating control points assigned to a portion of each cable is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. For example, the specification describes a 3D CAD system, but the specification only provides description of 2D control points (refer to figure 2 and figure 7).

3.5. The method of generating a complete cable form based on data obtained in the cable routing position data adding step is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specifications appear to be silent about the meaning of a cable form.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 2, 3, 6, 7, and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5.1. The claims recite a “cable form”. The examiner cannot determine exactly what a “cable form” means. For the purpose of claim interpretation, a “cable form” is interpreted to mean an isometric view of a cable.

5.2. The claims recite “each control point indicates a reference position in a cable routing”. The examiner cannot determine exactly what a “reference position” means. For the purpose of claim interpretation, a

“reference position” is interpreted to mean a point in space that the cable passes through.

Claim Rejections - 35 USC § 103

- 6.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 7.** Claims 1, 2, 3, 6, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferketic (U.S. Patent No. 5,021,968) in view of Newton (Newton, Randall S.; “IsoExtractor: Intelligent isometrics for 3D piping models in support of the engineering life cycle”, January 2000, Microstation Manager), further in view of Perrault (U.S. Patent No. 6,452,095).

7.1. The art of Ferketic is directed to a graphical cable management system (Title and Abstract).

7.2. The art of Perrault is directed to cable hangers for supporting electrical cables (Title and Abstract).

- 7.3.** The art of Newton is directed to 3D CAD.
- 7.4.** Ferketic appears to teach a cable designating step **(column 3, lines 57 – 60)**. Routing an individual cable obviously requires designating the cables.
- 7.5.** Ferketic appears to teach a cable area calculation **(column 4, lines 34 – 40)**. It is obvious that in order to calculate percent fill capacity, that it is necessary to calculate a cable area.
- 7.6.** Ferketic appears to teach selecting and designating a cable raceway **(column 15, lines 34 – 40)**.
- 7.7.** Ferketic appears to teach a cable trench checking step **(column 13, lines 34 – 43)**.
- 7.8.** Ferketic appears to teach a cable routing position designating step and data adding step **(column 15, lines 34 – 40, and column 16, lines 8 - 12)**. It is obvious that selecting a raceway also designates a cable routing position and adds data.
- 7.9.** Ferketic appears to teach generating a complete cable form **(column 23, lines 22 – 25)**. It is obvious that displaying a cable route generates the complete cable form.

7.10. Ferketic does not specifically teach retrieving a 3D model of a cable clamp.

7.11. Ferketic does not specifically teach determining a position of a cable clamp.

7.12. Ferketic does not specifically teach a cable clamp.

7.13. Newton appears to teach retrieving a 3D model data of a model element **(page 22, top right quadrant, graphic image displays 3D model data)**.

7.14. Newton appears to teach determining a position of a model element **(page 22, top right quadrant, graphic image displays 3D model data)**

7.15. Perrault appears to teach a cable clamp **(Title, and Figure 2)**.

7.16. The motivation to use the art of Newton with the art of Ferketic would have been obvious in view of the teaching in Ferketic to use a CAD system for cable management **(column 4, lines 54 – 61)**.

7.17. The motivation to use the art of Perrault with the art of Ferketic would have been obvious in view of the teaching in Perrault that using the

cable clamp allows electrical cables to be hung strongly, permanently, and easily, in desired locations and combinations, at a low cost **(column 1, lines 5 – 13)**. It would have been obvious to use the cable clamp of Perrault for cables in buildings.

- 8.** Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferketic (U.S. Patent No. 5,021,968) and Newton (Newton, Randall S.; “IsoExtractor: Intelligent isometrics for 3D piping models in support of the engineering life cycle”, January 2000, Microstation Manager), and Perrault (U.S. Patent No. 6,452,095).

8.1. Claim 4 is a dependent claim of rejected claim 1 or rejected claim 2 or rejected claim 3, and thereby inherits all of the rejected limitations of claim 1 or claim 2 or claim 3.

8.2. Claim 9 is a dependent claim of rejected claim 6 or rejected claim 7 or rejected claim 8, and thereby inherits all of the rejected limitations of claim 6 or claim 7 or claim 8.

8.3. Perrault teaches that cables pass perpendicularly through the end faces of a cable clamp **(figure 2)**.

- 9.** Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferketic (U.S. Patent No. 5,021,968) and Newton (Newton, Randall S.;

“IsoExtractor: Intelligent isometrics for 3D piping models in support of the engineering life cycle”, January 2000, Microstation Manager), and Perrault (U.S. Patent No. 6,452,095).

9.1. Claim 5 is a dependent claim of rejected claim 1 or rejected claim 2 or rejected claim 3, and thereby inherits all of the rejected limitations of claim 1 or claim 2 or claim 3.


9.2. Claim 10 is a dependent claim of rejected claim 6 or rejected claim 7 or rejected claim 8, and thereby inherits all of the rejected limitations of claim 6 or claim 7 or claim 8.

9.3. Perrault teaches that control points of a cable need to be determined at positions away from each end face of the cable clamp by a minimum bend radius of each cable along the direction perpendicular to each end face **(figure 2)**. It is obvious from **(figure 2)** that the cable must have a control point at a position away from each end face of the cable clamp by a minimum bend radius of the cable along the direction perpendicular to each end face in order to ensure that the cable can enter the cable clamp perpendicular to the end face.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell L. Guill whose telephone number is 571-272-7955. The examiner can normally be reached on Monday - Friday 9:00 AM – 5:30 PM. Any inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist: 571-272-2100.
11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 571-272-3716. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RG


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